



DATE: February 24, 1997

Sheet 1 of 8

FORM PTO-1449-Mod.

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
115132-4

SERIAL NO.
08/475,470

LIST OF DISCLOSURES

APPLICANT
RICHARD J. SAMULSKI ET AL.

FILING DATE
June 7, 1995

GROUP
1805 1809

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER								DATE	NAME	CLASS	SUBCLASS	FILING DATE
ATN	AA	5	1	3	9	9	4	1	8/19/92	Muzyczka et al.	435	172.3	
ATN	AB	5	1	7	3	4	1	4	12/22/92	Lebkowski et al.	435	172.3	
ATN	AC	5	2	5	2	4	7	9	10/12/93	Srivastava	435	235.1	
	AD												
	AE												
	AF												
	AG												
	AH												
	AI												
	AJ												
	AK												

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
	AL											
	AM											
	AN											
	AO											
	AP											

OTHER DOCUMENTS

ATN	AR		Bank et al., "Gene Transfer. A Potential Approach to Gene Therapy for Sickle Cell Disease", <u>Annals New York Academy of Sciences</u> , pp. 37-43. (no year)
ATN	AS		Friedmann, "Gene Therapy", <u>Therapy for Genetic Disease</u> , pp. 107-121. (no year)
ATN	AT		Hermonat et al., "Use of adeno-associated virus as a mammalian DNA cloning vector: Transduction of neomycin resistance into mammalian tissue culture cells", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 81, pp. 6466-6470 (October 1984).

EXAMINER

Amy Neh

DATE CONSIDERED

5/11/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



DATE: February 24, 1997

Sheet 2 of 8

FORM PTO-1440 (1-92)
TRADEMARKS

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
115132-4

SERIAL NO.
08/475,470

LIST OF DISCLOSURES

APPLICANT
RICHARD J. SAMULSKI ET AL.

FILING DATE
June 7, 1995

GROUP
1805 1809

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA											
AB											
AC											
AD											
AE											
AF											
AG											
AH											
AI											
AJ											
AK											

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
AL												
AM												
AN												
AO												
AP												

OTHER DOCUMENTS

ATN	AR1		Tratschin et al., "A Human Parvovirus, Adeno-Associated Virus, as a Eucaryotic Vector: Transient Expression and Encapsidation of the Prokaryotic Gene for Chloramphenicol Acetyltransferase", <u>Molecular and Cellular Bio.</u> , pp. 2072-2081 (October 1984).
ATN			Orkin, "Molecular Genetics and Potential Gene Therapy", <u>Clinical Immunology and Immunopathology</u> , Vol. 40, pp. 151-156 (1986).
ATN	AT1		Nienhuis et al., "Transfer of Genes in Hematopoietic Cells with Retroviral Vectors", <u>Cell Physiology of Blood</u> , Chapter 8, pp. 79-89 (1988).

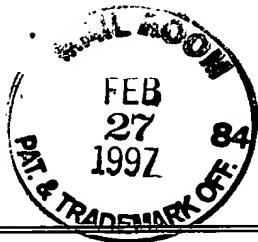
EXAMINER

Amy Nels

DATE CONSIDERED

5/19/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



DATE: February 24, 1997

Sheet 3 of 8

FORM PTO-1449-Mod.

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
115132-4

SERIAL NO.
08/475,470

LIST OF DISCLOSURES

APPLICANT
RICHARD J. SAMULSKI ET AL.

FILING DATE
June 7, 1995

GROUP
1805 1809

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER							DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA												
AB												
AC												
AD												
AE												
AF												
AG												
AH												
AI												
AJ												
AK												

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
												YES	NO
AL													
AM													
AN													
AO													
AP													

OTHER DOCUMENTS

ATN	AR2		Wondisford et al., "Cloning of the Human Thyrotropin β -Subunit Gene and Transient Expression of Biologically Active Human Thyrotropin after Gene Transfection", <i>Molecular Endocrinology</i> , Vol. 2, No. 1, pp. 32-39 (1988).
ATN			LaFace et al., "Gene Transfer into Hematopoietic Progenitor Cells Mediated by an Adeno-Associated Virus Vector", <i>Virology</i> , Vol. 162, pp. 483-486 (1988).
ATN	AT2		Williams, "Gene Transfer and the Prospects for Somatic Gene Therapy", <i>Hematology/Oncology Clinics of North America</i> , Vol. 2, No. 2, pp. 277-287 (June 1988).
ATN			

EXAMINER

Amy Neh

DATE CONSIDERED

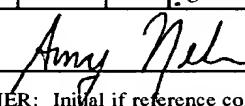
5/19/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

MAIL ROOM
FEB 27 1997
84
H. S. OF

DATE: February 24, 1997

Sheet 4 of 8

FORM PTO-145 		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				ATTY. DOCKET NO. 115132-4	SERIAL NO. 08/475,470			
		APPLICANT RICHARD J. SAMULSKI ET AL.								
		FILING DATE June 7, 1995				GROUP 1805	1809			
		LIST OF DISCLOSURES								
U.S. PATENT DOCUMENTS										
EXAMINER INITIAL	DOCUMENT NUMBER				DATE	NAME	CLASS	SUBCLASS	FILING DATE	
AA										
AB										
AC										
AD										
AE										
AF										
AG										
AH										
AI										
AJ										
AK										
FOREIGN PATENT DOCUMENTS										
	DOCUMENT NUMBER				DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
									YES	NO
AL										
AM										
AN										
AO										
AP										
OTHER DOCUMENTS										
ATN	AR3		Gale, "Prospects for Correction of Thalassemia by Genetic Engineering", <u>Advances and Controversies in Thalassemia Therapy</u> : Bone Marrow Transplantation and Other Approaches, pp. 141-159 (1989).							
ATN			Srivastava et al., "Construction of a recombinant human parvovirus B19: Adeno-associated virus 2 (AAV) DNA inverted terminal repeats are functional in an AAV-B19 hybrid virus", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 86, pp. 8078-8082 (October 1989).							
ATN	AS3		Sorrentino et al., "A 46 base pair enhancer sequence within the locus activating region is required for induced expression of the gamma-globin gene during erythroid differentiation", <u>Nucleic Acids Research</u> , Vol. 18, No. 9, pp. 2721-2731 (1990).							
ATN										
EXAMINER					DATE CONSIDERED		5/19/97			
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.										



DATE: February 24, 1997

Sheet 5 of 8

FORM PTO-1449-Mod.

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
115132-4

SERIAL NO.
08/475,470

LIST OF DISCLOSURES

APPLICANT
RICHARD J. SAMULSKI ET AL.

FILING DATE
June 7, 1995

GROUP
1805 1809

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA											
AB											
AC											
AD											
AE											
AF											
AG											
AH											
AI											
AJ											
AK											

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
AL												
AM												
AN												
AO												
AP												

OTHER DOCUMENTS

ATN	AR4		Beutler et al., "Gene Transfer in the Treatment of Hematologic Disease", <u>Exp. Hematol.</u> , Vol. 18, pp. 857-860 (1990).
ATN	AS4		Ohi et al., "Construction and replication of an adeno-associated virus expression vector that contains human β -globin cDNA", <u>Gene</u> , Vol. 89, pp. 279-282 (1990).
ATN	AT4		Novak et al., "High-level β -globin expression after retroviral transfer of locus activation region-containing human β -globin gene derivatives into murine erythroleukemia cells", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 87, pp. 3386-3390 (May 1990).

EXAMINER

Amy Neh

DATE CONSIDERED

5/19/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FEB
27
1997
84
PAT. & TRADEMARK OFF.
FORM 1410-04 Mod.

DATE: February 24, 1997

Sheet 6 of 8

U. S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE				ATTY. DOCKET NO. 115132-4	SERIAL NO. 08/475,470
LIST OF DISCLOSURES				APPLICANT RICHARD J. SAMULSKI ET AL.	
FILING DATE June 7, 1995				GROUP 1805	1809

U. S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA											
AB											
AC											
AD											
AE											
AF											
AG											
AH											
AI											
AJ											
AK											

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
AL												
AM												
AN												
AO												
AP												

OTHER DOCUMENTS

ATN	ARS		Desnick et al., "Human Gene Therapy: Strategies and Prospects for Inborn Errors of Metabolism", <u>Treatment for Genetic</u>
			Diseases, pp. 239-259 (1991).
ATN	ASS		Nienhuis et al., "Gene Transfer Into Hematopoietic Stem Cells", <u>Cancer</u> , Vol. 67, pp. 2700-2704 (1991).
ATN	AT5		Samulski et al., "Targeted integration of adeno-associated virus (AAV) into human chromosome 19", <u>The EMBO Journal</u> ,
			Vol. 10, No. 12, pp. 3941-3950 (1991).

EXAMINER

Amy Neh

DATE CONSIDERED

5/19/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



DATE: February 24, 1997

Sheet 7 of 8

FORM PTO-1442-Mod		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 115132-4	SERIAL NO. 08/475,470
LIST OF DISCLOSURES		APPLICANT RICHARD J. SAMULSKI ET AL.			
		FILING DATE June 7, 1995	GROUP 1805 1809		

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA											
AB											
AC											
AD											
AE											
AF											
AG											
AH											
AI											
AJ											
AK											

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
AL												
AM												
AN												
AO												
AP												

OTHER DOCUMENTS

AJN	AR6	Ledley, "Clinical Considerations in the Design of Protocols for Somatic Gene Therapy", <u>Human Gene Therapy</u> , Vol. 2, pp. 77-83 (1991).
AJN	AS6	Sitaric et al., "Production of a Helper-Free Recombinant Adeno-Associated Virus That Harbors Human Beta-Globin cDNA", FASEB 6(5):6843 (Abstract) (1991).
AJN	AT6	Walsh et al., "Gene Transfer and High Level Expression of a Human Gamma Globin Gene Mediated by a Novel Adeno- Associated Virus (AAV) Vector", Clinical Research 39(2):325A (Abstract) (1991).

EXAMINER	<i>Amy Nelson</i>	DATE CONSIDERED	<i>5/14/97</i>
----------	-------------------	-----------------	----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



DATE: February 24, 1997

Sheet 8 of 8

FORM 1410-1440 M-1
TRADEMARKS OR TRADEMARKS
PATENT AND TRADEMARK OFFICE

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
115132-4

SERIAL NO.
08/475,470

LIST OF DISCLOSURES

APPLICANT
RICHARD J. SAMULSKI ET AL.

FILING DATE
June 7, 1995

GROUP
1805 1809

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER						DATE	NAME	CLASS	SUBCLASS	FILING DATE
AA											
AB											
AC											
AD											
AE											
AF											
AG											
AH											
AI											
AJ											
AK											

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER						DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
											YES	NO
AL												
AM												
AN												
AO												
AP												

OTHER DOCUMENTS

AJN	AR7	Muzyczka, "Use of Adeno-Associated Virus as a General Transduction Vector for Mammalian Cells", <u>Current Topics in Microbiology and Immunology</u> , Vol. 158, pp. 97-129 (1992).
ATN	AS7	Chang et al., "A 36-base-pair core sequence of locus control region enhances retrovirally transferred human β -globin gene expression", <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 89, pp. 3107-3110 (April 1992).
ATN	AT7	Miller, "Human gene therapy comes of age", <u>Nature</u> , Vol. 357, pp. 455-460 (June 1992).

EXAMINER

Amy Nel

DATE CONSIDERED

5/19/97

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.